It will be seen that while for hydrocarbons $\mu^2_\infty = K$, for animal and vegetable oils it is not so.

VI. "Note on the Occurrence of Ganglion Cells in the Anterior Roots of the Cat's Spinal Nerves." By E. A. Schäfer, F.R.S. Received January 11, 1881.

Ganglion cells are of constant occurrence among the nerve-fibres of the anterior roots of the cat's spinal nerves. They are generally to be found in that part of the anterior root which passes by the ganglion which is seated upon the posterior root. They are not necessarily situated next the ganglion; but are often imbedded in the middle of the anterior root, or found lying along its anterior margin, and therefore as far removed as possible from the ganglion upon the other root. Moreover, they sometimes occur in the anterior root before this has come in contact with the ganglion, just as isolated ganglion cells are occasionally to be found in the posterior root, some little distance on the spinal-cord side of its ganglion. The cells in question, although not in any sense numerous, are to be found in most longitudinal sections of the anterior roots, but they seem to be especially abundant in those of the lower dorsal and lumbar nerves. They resemble on the whole very closely the ganglion cells in the spinal ganglion upon the sensory roots, but it has not hitherto been possible to make out their mode of connexion with the nerve-fibres.

I have sought in vain for ganglion cells in a similar situation in the nerve-roots of man, the dog, the rabbit, and the mouse. The evidence, therefore, appears to be against the existence of any relation between the occurrence of these cells in the anterior root and the phenomenon of sensibility in that root, known as "recurrent sensation," for the latter has been observed in animals in which I have been entirely unable to detect the existence of the cells in question (*e.g.*, the rabbit).

VII. "On the Iron Lines widened in Solar Spots." By J. Norman Lockyer, F.R.S. Received January 13, 1881.

The observations put forward with reserve in my last communication to the Society have now been confirmed.

In the fine spots visible on December 24th, January 1st and 6th, many lines in the spectrum of iron were seen contorted, while others were steady.

The facts are given in the following table:—